

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTONTWO NEW GENERA OF XYSTODESMID MILLIPEDS
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Of the two new generic names proposed in this paper, one is based on a species originally described in the genus *Apheloria*. The other is based on specimens in the collection of the United States National Museum.

In 1942 (Ent. News, 53:169-70), Mrs. Nell Causey described a new species of xystodesmid milliped under the name *Apheloria bidens*. The type locality was said to be in the Great Smoky Mountains National Park, near Chimneys, Sevier County, Tennessee; and the male holotype was deposited in the collection of the Academy of Natural Sciences of Philadelphia, No. 11263.²

In connection with a monographic study of *Apheloria* (now in preparation) I have examined thus far a large number of specimens belonging to 11 of the 18 species now included in that genus. From the information at hand, it seems that *Apheloria* may be divided into three sections on the basis of the distal joint of the male gonopod. One section includes only the disjunct *A. ainsliei* Chamberlin, which is characterized by the large serrate mesiobasal process. A second group contains species in which the tip of the telopodite blade is bent laterad, and the basal spine is borne on an oblique cephalic ridge. The third group is composed of species in which the telopodite blade is bent mesiad and the basal spine is borne on a small lateral shoulder. These three groups will be defined in greater detail in the forthcoming generic revision.

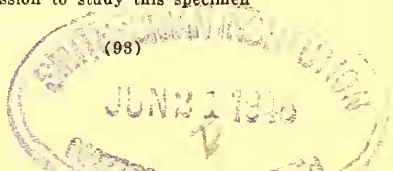
Regardless of the direction in which the blade is directed, or the location of the basal spine, the former is always entire and the latter always present in one of the two positions. The gonopod of *A. bidens* does not conform in either particular, and it seems advisable to establish a separate genus for its inclusion.

Falloria, new genus

Diagnosis.—Related to the established xystodesmid genus *Deltotaria* in the conspicuously upward production of the cephalolateral portion of the base of the telopodite, and in lacking a small curved basal spine. From *Deltotaria* it differs in the bifid nature of the tip of the telopodite blade as well as in that structure being somewhat compressed instead of being subcylindrical in cross-section.

¹I wish to express my gratitude to Mr. Lawrence M. Carter for assistance with the drawings, to Dr. Horton H. Hobbs, Jr., for providing facilities for study, and to Mr. H. F. Loomis for graciously permitting me to describe the new form named here as *Anfractogon tenebrans*.

²I am indebted to Dr. James A. G. Rehn for permission to study this specimen on a recent visit to the Academy.



Genotype.—*Apheloria bidens* Causey.

The production of the cephalolateral portion of the base of the telopodite, alluded to in the preceding diagnosis, is not especially evident in the drawing of *Deltotaria brimleii* (Causey, *op. cit.*, fig. 1), but is to be seen in the recently described *D. nigrimontis* Chamberlin and in a species described by the present writer (in press).

Anfractogon, new genus

Diagnosis.—A genus of the Xystodesmidae characterized by processes on the sternites of the third, fourth, and fifth pairs of legs of the male; and by the structure of the male gonopod, the telopodite of which is jointed, in this respect like the established genus *Brachoria* but with the distal end much modified and the basal spine different.

Description.—Large forms, in general with the characters of the family in conformation of the segments, legs, antennae, etc. The sternites between the third pair of legs in the male bear an upright conical process formed by the fusion of two elements which protrude up from the mesoventral part of the segment; the sternites between the fourth and fifth legs of the male each with a pair of small, conical knobs. The gonopods large, the telopodite curved as in *Apheloria*, etc., and with a joint like that of *Brachoria*; the distal end variously modified and branched. Repugnatorial pores dorsal in position, on the keels of segments 5, 7, 9, 10, 12, 13, 15-19. Femora with slightly curved spines.

Genotype:

Anfractogon tenebrans, new species

(Figs. 1-3)

Diagnosis.—With the characters of the genus, further distinguished by the terminal modifications of the male gonopod, as represented in the accompanying illustrations.

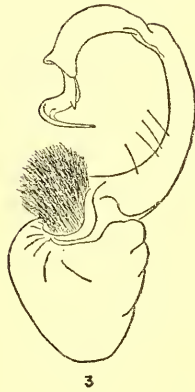
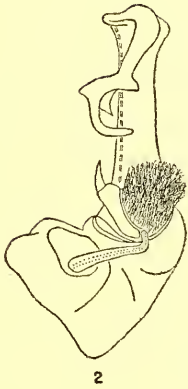
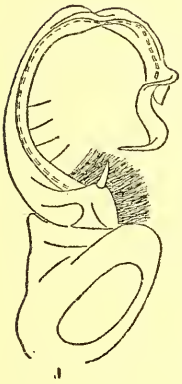
Description.—A large species, length of holotype, 43, width, 11.9 mm. Width of body averages 26% of length approximately. Body robust, gently tapering cephalad, more abruptly caudad. Segments four through fourteen of full width.

Collum small, ellipsoid in shape, with small anterior and lateral marginal ridges; conspicuously emarginate across caudal edge. Front and back edges about evenly tapered laterad, lateral extremities directed slightly caudad.

Second and third segments with cephalolateral edges swept back, dorsolateral marginal ridges small. Segments four through fourteen subsimilar, anterior corners rounded, slightly lobed cephalad, posterior corners directed slightly caudad but not exceeding tergite at midline; segments fifteen through nineteen with keels becoming increasingly produced caudally; keels of nineteenth equal in length to exposed portion of tergite at midline. All tergites well arched, slightly wrinkled under low magnification; keels broad, directed downward. Repugnatorial pores dorsal in position, in the usual elongate swelling.

EXPLANATION OF PLATE

Fig. 1. *Anfractogon tenebrans*, n. sp., left gonopod of male holotype, lateral view; Fig. 2, the same, cephalic view; Fig. 3, the same, mesial view.



Anal segment triangular in dorsal aspect, longer than broad, basal width slightly greater than distance between keels of nineteenth segment. Anal valves slightly inflated, glabrous, smooth, with a small tubercle near the center of each. Preanal scale subtriangular with large lateral terminal lobes.

Bases of last pair of legs almost in contact. Legs of segments eight through eighteen subsimilar; sternites of posterior pair on each segment with small pointed lobes, coxae and trochanti unarmed, femora with long slightly curved spines, terminal tarsal joint equal to other two in length, slightly shorter than femur, with slender curved claw.

Coxae of second pair of legs with cylindrical, distally truncate, seminal processes; sternites between third pair of legs with a large conical projection (formed by the fusion of two extensions of the mesoventral portion of the segment); those between the fourth and fifth legs each with a pair of small pointed tubercles. Pregenital limbs much more hairy than postgenital legs.

Gonopods in place lie with their median axes at right angles to the median axis of the body, the terminal elements crossed. Base of telopodite with the following structures: a large, flattened, cephalolateral shoulder bearing a short heavy upright spine; a rounded mesial setiferous knob, behind which is a chitinous ridge; and a mesial sinus caudad of the ridge. At midlength the telopodite blade is articulated, the distal half becoming flattened, bent, and bearing the following elements: (1) a small rudiment of a mesial branch, (2) a very thin chitinous lamella, and (3) a large flat terminal branch which is bent mesiad and then caudad, becoming drawn out into a fine tip. There is a seminal groove which commences at the cephalic base of the setiferous knob and runs caudad between it and the lateral shoulder, thence along the lateral edge of the blade almost to the tip of the terminal branch. For further details of the gonopods consult the accompanying drawings.

Color in life not known, but appears to have been black with the entire keels yellow or red. Certain tergites of the much faded type suggest that it may have had a median row of spots.

Type specimens.—Male holotype and male paratype in the U. S. National Museum, No. 1811. These specimens were collected at an undesignated locality in Winston County, Alabama, by Dr. Lucien M. Underwood in June 1896.

Remarks.—These diplopods had been examined by Dr. O. F. Cook and labeled *Fontaria tenebrans*. Mr. Loomis, who had borrowed them with other material from the National Museum, also recognized them as an undescribed species and as representing a new genus as well. On learning of my interest in eastern millipeds, Mr. Loomis kindly forwarded the specimens to me with the suggestion that I describe them.

The types are much bleached and seem to have been dried at one time. They are broken into many pieces and the distal halves of the gonopods of the paratype have been broken off. Despite the fragmentary condition of the specimens, I was able to match the pieces satisfactorily.

Judging from the configuration of the male gonopods, the genus *Anfractogon* belongs to the group of xystodesmid genera including *Apheloria*, *Deltotaria*, *Sigiria*, and *Brachoria*. It is most like the latter in the jointed nature of the telopodite.